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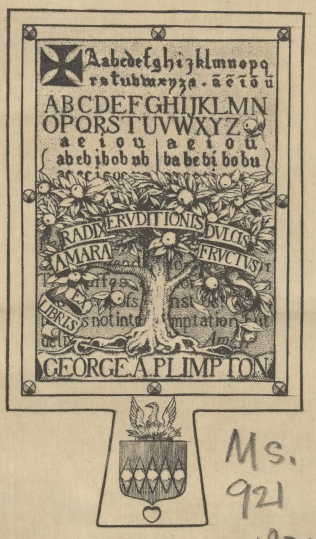

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Note from page 1 * Henry Sully, a watchmaker of London, made some experiments that promised well in 1721, & again in 1726, but died prematurely — a martyr to his exertions.

It is remarkable that Hutchinson, the Theologian, principally known by the extravagance of his opinions, was among the most noted aspirants to the discovery of the Longitude at sea. Having some genius for mechanics, he constructed, ~~[illegible]~~ & in 1712 completed, a Timekeeper, which, according to the Testimony of Sir Isaac Newton & others, was highly deserving attention. But the Inventor, when application was to be made to Parliament in his behalf, "not meeting with that support "he had been led to expect," with the ungovernable exasperation incident to his character, destroyed all his papers on the subject.

Note for page 3. at + We read that, in 1721, a watchmaker of London, named Henry Sully, completed a marine ~~Time~~ Time Keeper; & afterwards made a second, which which was tried at sea in 1726; but the Inventor died two years afterwards, a martyr to his horological studies, before he had brought his machines to that state of perfection which their object demanded. Had he lived longer, chronometry would no doubt have been greatly promoted by his labours.

& Unwise of this unfortunate man, many may be surprised to be told that Huchinson, the theologian principally known by the extravagance of his opinions, but who had some genius for mechanics, was among the most noted aspirants to the discovery of the Longitude at sea. — He is related to have completed, in 1712, a machine of the watch kind for this purpose; which, upon its being referred for examination to Sir Isaac Newton & others, obtained testimonials, under their hands, to its excellence & utility. But as the inventor, when application was to be made to Parliament, did not receive that support which he had been led to expect; & exasperated at his disappointment, he seems to have laid "aside this, & several other things of the same sort, & to "have destroyed all his papers relating to them." An involuntary reflection arising here is that had John Harrison been cast in the same mould as Huchinson, he could never have surmounted half the troubles he had

1/ to stem: especially under The Treatment he experienced from James, Earl of Morton P. R. S.

In place of the above Note — too long, at the commencement of the narrative, substitute at [redacted]

Page 0 *

Memoirs of a Trait in the
character of George 3.d of these United Kingdoms;

authenticated by official papers and
private letters, in possession of the Author;

with a history of the Transactions that
led to the royal interference in the case recited:
& an Appendix of illustrative Facts.

By John Norris, Gent.

Lend me thy Muse, Goddess! let me try
To sound the praise of merit, ere it dies.

Thurstone

John Harrison, a self taught genius of distinguished
ability in the last century, had several years devoted
his leisure to horological mechanics, at [illegible]

Memoirs of a Tract in the Character of George 3rd

Chap. 1st

[illegible] an obscure village, contiguous to the Number, before he heard of the existence of

a Parliamentary reward for

He had previously invented the compound or gridiron pen-dulum, the principle of which, variously modified, is now of universal application; the chief difficulty was to ac-comodate his machines, then on a large scale, to the irregular motion of a ship in blowing weather. Having made drawings of one adapted, as he conceived, to overcome the disadvantages in which before him Monsieur Huygens had entirely failed, with these he repaired to London in 17 & by the advice of D.r Halley introduced himself to M.r George Graham, a man of such rare & delicitous candour that he ought to be known for his singular virtue, independent of his professional eminence. The prudent advice he gave our adventurer, was, to execute his machine first, instead of submitting the drawings to the inspection of the Com-missioners of Longitude, who, he probably told him, would not understand them; whereas if he proceeded with the Timekeeper, & its accuracy was satisfactory, when fin-ished, he would have an undeniable claim on their at-tention.

the practical solution of a problem which had foiled the most scientific men in Europe for an indefinite period, & from that time applied himself as exclusively to the subject as the immediate wants of his family would allow. Take in Paragraph on the left

Thus consoled, he returned home, & occupied himself as much as he could with the fabrication of his machine; this being completed in 1735, brought him to town again, to submit it to some of the principal mathematicians & fellows of the Royal Society, from five of whom he received a certificate, that the principles of it promised to insure the accomplishment of this most important object. In the following year, under the auspices of Sir Charles Wager, this marine chronometer, or Timekeeper, as it was less appropriately called, was put on board a man of war to be taken to Lisbon. In the run from thence, which being nearly on a meridian was rendered more difficult by that, the machine corrected an error of almost a degree & a half in the computations on board the ship. The officers however suggested to the Inventor to give it a more compact form, if he could, as they apprehended it would be found rather cumbersome on shipboard. Note at ✕359 △

In consequence of this success, & of the preceding recommendation, the Commissioners of Longitude

on the

stipulating that this, & another machine, which he pro-
-posed to construct, should become the property of the
public. In the construction

giving it

30th June 1737, by virtue of a clause in the act of Parliament, which placed £2,000 at their disposal, for the encouragement of ingenious men, independent of such reward as they might afterwards become entitled to, directed the candidate to procure with his undertaking & gave him £500: [redacted] of a second [redacted], besides reducing the size, some improvements were introduced, & being finished in 1739, various experiments were tried with it; such as sudden motions & shocks like those at sea, but more violent; & proving it to the fire, & then to cold. The result so far as could be ascertained determined without embarking it on the element "was that it was "sufficiently exact for finding the Longitude within "the nearest limits specified by the 12th of Queen "Anne, & probably much nearer." He does not appear however to have solicited the ultimate trial, which would entitle him to his recompence, if successful, but availing himself of the experience he had acquired by the two former, immediately [redacted] resumed his labours, to construct a third machine, on the same principles, but with considerable advantages over both. This Timekeeper being in forwardness in 1741, procured him a pecuniary ad-

zealous friendship for so formidable a rival ~~~~~
we have elsewhere observed, could not be too

-for the following Board 4th June 1746, ~~~~~~~~~~

which ~~~~~ him another advance to the same amount.
In the same year

& their report thereon procured ✠

○ See the Appendix N 2

⊗ The Discourse of Sir Martin Folkes, on that occasion, is given at N 3. Appen.

This further honour

to the same amount as before, at the instance, & from the representations of George Graham, the most eminent clock & watch maker in London, whose [illegible] much admired. The recommendation of this philosophic man, as we may call him in every sense, came here in another shape, being included in that of the President, Mr. afterwards Sir Martin Folkes, & eleven Fellows of the Royal Society. The examination of the third machine by Mr. Folkes Dr. Smith & Dr. Bradley who were commissioners gave him further advantages. In 1749 that distinguished philosopher Sir Hans Sloane pointed out the extraordinary merit displayed in these machines as a proper subject for the Inventor to be honoured with the annual gold medal of the Royal Society — which proposed to have constituted him of their body but his time of life & his retired habits induced him to decline. The honour in favour of his son, a young man just of age, who was immediately elected: — a distinction from whence it may be inferred he was fully competent to the astronomical observations which it

6

Rusp. 3 D

□ Quod erat demonstrandum, was a scrap of Latin he got from his friend D.r Smith.

was necessary his Father's representative should be sup-
-plied to take, when the Timekeeper should be tried
considering the degree of accuracy our mechanic-
-ks had now attained reached, particularly in the third
machine, which was of a more compact & convenient
form than those preceding, it seems strange that he did
not give his attention to the conclusive experiment,
& indispensible test required. But he was different from
ordinary men, under similar circumstances, as well as in
his inventive powers. He might have been influenced,
like a Spartan, by a wreath of wild parsley, provided
it had denoted his superiority to all who had gone before
him. He would not have been satisfied with achieving
the Discovery within the letter of the Act, nor with re-
-ceiving the reward, unless the public voice decidedly
admitted his claim to it. He is found therefore repeat-
-ing his labours, as if to make assurance doubly sure, for
he believed success attainable considerably within
the 30 thirty miles geographical miles given as a stand-
-ard; & the result verified his judgment. It is probable
it might likewise have had weight with him, that his
son, who afterwards became emphatically his right
hand in his transactions with the commissioners of

7

from some particulars of it [redacted]

pocket watch, & that he had

or for astronomical purposes in general. This species of was frequently

Longitude, would improve as a scientific observer in the interim, & be more acceptable to the officers he was to sail with.

From the minutes of a Board held at midsummer in 1755, it appears, that being engaged in improvement of the third machine, he saw reason to deviate so much that while he preserved the principles, he began a fourth which he gave the form of a watch about five inches in diameter. He also informs the commissioners, that another had been executed under according to his direction, although not perfected, of a size to be worn like a watch, "and readers "to think, from the performance of it, that such small machines may be made "capable of being of great service for finding the Longitude at sea: & be purchased at a much cheaper rate "than the larger & superior Timekeepers."

This, it may be remarked, was the origin of the modern chronometer; as before that time it had either not been attempted, or had not succeeded, to give watches of the ordinary size the accuracy necessary for so important an use, borrowed by Admiral Campbell, when he was going to sea,

large watch & the smaller one.

In 1760 the Third machine was again
& the fourth or large watch

with the third of the machines.

frequently

which may be thought a sufficient commendation
of its utility.

In 1757 we find the third machine stated to be
ready to be sent to sea but the Commissioners were of
opinion it would be preferable that it should remain
about a twelvemonth longer by him to be more fully
adjusted & regulated; especially as the [redacted] might be proceeded
with in the mean while, & if completed, should go
along with it. [redacted]
given in as being completely prepared for the voyage
though totally put together, he says,
"answered beyond his expectations, & by an account
"he had kept of it, going would successfully fulfil
"the end of a Timekeeper to ascertain the Longitude at
"sea. but he thought it necessary to make further
"experiments with it in the different seasons of the
"year, & for that purpose desired till the ensuing
"April." At length — on [redacted] March 20th 1761
the junior Harrison, pursuant to directions from the
Board of Longitude, & by order of the Commissioners
of the Navy, [redacted] embarked, at Deptford,
in a transport bound to Portsmouth; where his Father,

9

Chap 2.

~~was by the peculiar character the third part of a certain~~
~~the stamp & superscription of the specimen thus brought for-~~
~~-ward~~

there is sufficient

~~had that dazzling prospect constituted his primary~~
~~impulse & his final motive according to positi-~~

the great

Frequency

who would travel by land at a proper juncture, was to join him with the fourth, or large watch.

~~He [illegible] reward details, besides its~~
~~other use, may answer the enquiries in the history of~~
~~men, it has, above thirty years, let this real genius~~
~~was deserved (it may be said) by the desire of attaining~~
~~all possible perfection in his pursuit~~ From the report on the second machine, above twenty years before, [redacted] reason to believe he might, then, have become fully entitled to the largest reward: ~~[illegible]~~ orders which were omitted for brevity, there was no im-
~~pediment on the part of the Commissioners~~
~~demand to the contrary~~ but at a period so long
~~before~~ But John Harrison ~~might~~ mind
ignited by a flame that always burnt without con-
-suming him, in the desire to give all possible perfection
to his scientific productions. This extraordinary pro-
-crastination, & endless resumption of his labour, reminds
the Author of an observation by D^r. Moore on Frederic
~~[illegible] mental features~~ to wit, "That he united
"qualities, which (the Doctor) one thought incompatible with the
"same individual: for he joined to the restless ardour
"& activity of genius all the patience of the most
"persevering blockhead that ever drudged in a compt-
-ing House.

10 Note to Page 8 at ‡ The chronometer spoken of, the pocket watch of John Harrison's pocket watch, to wit, was made, under his Direction, by a workman whom he allowed to put his name to it, viz. John Jeffreys, London. But of course it has no number. The name is repeated on the cap, with the date added, being 1753. It does not exceed many other chronometers in diameter, but is much heavier. The biographers of our candidate relate that after he had finished his third machine, he thought he had reached the ne plus ultra of his labours; but in an endeavour to improve pocket watches, he found the principles he employed so much to exceed his expectations, as induced him to commence a fourth, & further improved Timekeeper, in the form of a watch, about five inches in size, exclusive of the case: so that this interesting [redacted] may be looked on as marking an era in horological mechanics.

Note to Page 15 at ○ It was a fortunate circumstance for John Harrison, that his knowledge of astronomy was of so inferior description; as what occurs hereafter leads to

preparing

~~-ing home." An intelligent traveller might~~
~~found the exact counterpart of this peculiar Gen-~~
~~-ius in the celebrated German potentate. But it~~
~~may be degrading the disparaging the Englishman whose~~
~~enterprise was beneficent in every view to compare with~~
~~a set of chaps who are~~

~~—— such themes, the point to proceed;~~
~~for it ever enquired whether the population of~~
~~Libia was supplied with the catechetic formulae~~
~~as from Berlin than that from Vienna?~~

pm 8 9 The junior Harrison, whose Christian name was William, & who from that time bore an important part in the transactions ~~[illegible]~~ related, was left on his passage to Portsmouth. — The

to 8 11

The conclusion. That the university Gentlemen would not have been quite scrupulous in taking advantage of ~~his ignorance, had it been Harrison~~. The ignoramus, had he been "a mere mechanic."

promptly

This inattention to an individual who, from the na-

— On the 20th of March 20th in the above year the junior
Harrison pursuant to directions from the Board of Lon-
-gitude & by order of the commissioners of the navy
went on board a transport at Deptford bound to
Portsmouth with the third of the Timekeeper machines. When
his father who would travel by land at a pro-
per time went to join him with the rest
ship having arrived at Spithead on the 29th
immediately wrote to London; & in the
mean time remained on board, conformably to verb
-al orders to that effect; "Expecting instructi
"from the Admiralty, or the Commissioners of Longitude,
"how to proceed. John Harrison, on receiving this
"letter, went with it to Lord Anson; who ordered him to
"write directly, & inform his Son — that he must, at the
"machine on shore, or into a Tollerton cutter, & there
"wait till further orders. William Harrison directly, con-
-formed conformed thereto. He got the machine on shore,
"& then sent notice thereof to his Father, desiring him to
"acquaint his Lordship therewith. Which he did; but
"received no answer. John Harrison being very anxious about his Son's
"departure applied constantly at the Admiralty,

" ~~We transmit these~~

John Harrison had always conceived him to be very favourably inclined towards the prosecution of his labours & yet the Doctor utterly showed him his alienation of mind in terms that could not be mistaken.

But the influence of the Astronomer Royal, or of the Admiralty representative is less remarkable than the dictatory spirit of James Earl of Morton, President of the Royal Society, who, at an important period of the transactions in reference, as if he meant to illustrate Addison's position, that power converges from the many to the few, & draws to a focus, concentrated this of his brother commissioners in himself as effectually as Cromwell did that of the long Parliament except that it is not recorded "he turned them out of the room locked the door & put the key in his pocket."

The act of Parliament which was the foundation of the whole business having prescribed a voyage to the West Indies as a test of the merits of any invention produced to claim the rewards it held out, & the adventurer having in 1761 brought his Timekeeper to a sufficient accuracy for the intended trial applied accordingly to Lord Anson, who

-ture of his engagement, had undoubted claims on his Lord
-ships notice, would not be expected by those

had that the reader may not be taken unprepared

circumnavigator
world. It is informed that the likeness
would scarcely be recognized after an interval the a
lapse of fifteen years & in under the different relation
situation of the subject the substitute for Fifteen years
After, in his elevated rank, & in the enjoyment of that with
the fruits of his skill & toil, the substitute for

a service to navigation.

then presided at the Admiralty, that a ship might be appointed, & the requisite measures taken to enable him to proceed to sea on his behalf with the third & fourth of his machines in terms of the act. But the reader will be accustomed to admire the uncommon promptitude & energy of character, as well as the self possession, conspicuous in the commander of the Centurion, in her memorable [redacted] of the world would receive him to have become the shadow of himself at this time. The substitute for those valuable qualities had become in appearance an indolence on which no impression could be made, not at least in the present case by persons of the perception & under the circumstances of John Harrison, although it might have been suspected, that a portion of that humane attention his lordship was so noted for towards those whom the fortune of war placed at his disposal, would have been appropriate enough here: especially as the assistant was engaged in rendering [redacted] essential a navigation. — The substance of the matters which brought men of equal eminence in his own pursuit into contact with George Lord Anson the Vice Admiral [illegible] was perfectly obvious, beginning with the

114

~~Beginning must not be continued with~~ proceeded with. — John Harri-
son being very anxious about his Son's Departure
applied constantly at the Admiralty

" who transmitted their Plan

"for the instructions for the voyage, but to no purpose.
"He therefore, on the 13th of April, delivered a memorial
"to Lord Anson. — This document evinces his solicitude
that the trial should be equally satisfactory to mathe-
maticians & to the public. — It is remarkable, that the
which might be considered necessarily connected with
the examination of the Timekeeper, did not originate with
the University delegates, in whose department they were to
be looked for, but were suggested by one mechanic. —
who "after giving in this memorial still continued his at-
"tendance at the Admiralty, [redacted] to get
"the business expedited, but to little purpose. At length
"Lord Anson ordered a Board of Longitude to be called on
"the 2nd of June & the aforesaid memorial was read; in
"consequence of which the commissioners desired the opinion
"of the Royal Society with regard to the measures proper to
"be taken for the trial of John Harrison's Timekeeper.
" — The same was taken into consideration by the President
"& Council on the 25th of June, & the 3rd of July; [redacted]
"[redacted] to the commissioners of Longitude. —
It does not differ materially from that drawn up by the
said Dr, except that it enjoins observations of the eclip-
ses of Jupiter's satellites to be made at Jamaica, & cor-
responding ones at Portsmouth, to determine the difference
of Longitude between those places. On being informed of

& which it was extraordinary should have been overlooked; viz.
"That there is often

New paragraph
at + The Council of the Royal Society, after
revising their plan, perfectly concurred in the ob-
-jection of our Candidate, with respect to corresponding observations; & as we find
that they gave him a certificate declaratory that —
"the method proposed by Mr. Harrison will afford
"a very fair & satisfactory trial of his Timekeeper,
it may be concluded the particular which he did
not urge, notwithstanding its importance, was properly con-
-sidered by the Gentlemen of the Royal Society. But the
Astronomers from Oxford & Cambridge do not come forward during
these discussions, although they severally received £15
for their services at each Board they attended: & an inference
which D.r Knox would not have failed to press into his service, is
that the Candidate whom they affected to regard as a Mechanic
was superior to them on their own ground, & would have done
more honour to the Professors chair.

his, he took the liberty to represent that the season was too far advanced for such corresponding observations. It appears also, from a printed tract, he had a reason which he did not presume to urge [illegible] "that there is often a difference of more than two minutes in observations "made by the most able astronomers of the same eclipses "of Jupiter's first satellite, which is more than could be allowed the Timekeeper, to entitle the Inventor to the largest "reward, as the discovery would not be within 30 miles. — In the sequel these observations were omitted. +

"John Harrison after this did as before continue his "attendance at the Admiralty, & often wrote to his Son, "who still continued waiting at Portsmouth for orders. "William Harrison during his long confinement at that "port, sent the following letter to Lord Anson.

"My Lord

I hope you will excuse my taking this "great liberty, for it is with the greatest submission I make "bold to trouble your Lordship, & am sorry that I should "have this occasion.

"I have now been upwards of four months from "home, at great expence, & little money to defray it; & "kept from my family for seemingly no purpose, as I "depended upon going with our machine in the Dorsetshire, "which ship I now find is ordered for Channel service, therefore "have no hope left; & as I am confidently told that "your Lordship is going from home in a short time, I "hope you will take it into consideration, & order

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15

while suitably decorous
as if it had been forwarded by "conductor Upstream"

" that some step may be taken about me, before you go.
" and if there is no probability of my [illegible] proceeding
" on the Irish voyage this year, I think it is to little
" purpose any meeting my trouble by staying here. There-
" fore most sincerely beg that your Lordship will consid-
" -er my situation, & I am, with all submission
your Lordships most humble
Portsmouth July 29th 1761 & most obed.t serv.t
W.m Harrison

" But this was to no purpose, for he never
" received any answer; nor was his Father able to give him
" any satisfactory account; & as he could not see
" the least prospect of relief, he determined to return
" to London with the machine which he had with him.
" And in the beginning of September he waited on Admiral
" Holbourn, the Commander at the port, & begged he
" would please to ship him in a transport [illegible] which then lay at Spithead,
" bound for the Thames. Upon which the Admiral ordered
" her into the harbour, that the machine might be
" put on board with his Danger, & William Harrison
" arrived at London on the 19th of September.

On the above it may be observed, that the appli-
-cant getting no answer to a letter which [illegible] July
[illegible], seems to have been [illegible] as much to the purpose,
[illegible] " is so opposite to
the pretended idea of the politeness & condescension
of this nobleman, that the reader must be at the gaming ta-

note at ○ He played with so little caution, & was so easily gleaned, That [redacted] Lord Chesterfield sarcastically remarked, "he had been round the world, but not in the world. — A surprising contrast this, to the tact with which he was prepared to meet the enemy, when the gallows were looked for — but how often there is occasion to recollect the poet's sentiment on that compound creature, man —

"The glory, jest & riddle, of the world."

note at ○ The whole passage is so remarkable for illustrating the inattention of this Nobleman to a remedy, for want of which, he had a most Providential escape from experiencing the fate of Sir Cloudesley Shovel, that for convenience of reference, it will be found in the App. N°4. — The narrative of the voyage, published in the name of the reverend Richard Walter, is understood to have been written by — Robinson, a gunner (who afterwards perished in the Aurora frigate) but it was compiled from Lord Anson's papers, under his own inspection.

-ving a right so to do (which the gentlemen of the bar would have [redacted] unanimously supported)

-ble, to meet such a question as — Did his Lordship never reflect how highly an accurate Chronometer would have valued on board his squadron, when they were all so much disconcerted by falling in with Cape Noir, only two miles distant, while they thought themselves 600 miles S. & W. ward, of that headland — on which, had it not been providentially a moon light night, they might have gone stem on before they knew where they were: — as it was, they had again to encounter those calamities with which they were so surcharged.

The candidate, after his Son's return to London, renewed his application at the Admiralty by a second memorial, on October 3.rd From a passage in which, may be remarked the open & gentlemanly demeanour of an uneducated man. For as the act of the 12.th of Queen Anne is silent on the subject of the return voyage, not a few people, especially in the sphere of life he rose from, would have commended his prudence, if, after the successful arrival of the ship, & the requisite examinations, he had let the watch run down, or some pretence; or on the plea of [illegible]: to avoid unnecessary risks of the sea & other casualties, which, if he chose to abide by the

return a voyage as a

Indeed, a passage in the Candidate's journal, under this date, is so singularly illustrative of that radical defect in the ~~his door was open to all persons~~ ~~[illegible]~~ ~~[illegible]~~ ~~cities with or without a recommend~~ formation of the Commission of Longitude, before adverted to, that it would be an injury to omit it. — The name

second trial, ~~xxxxx~~ in addition to the first, might defeat his claim. But he was jealous on the point, & could not endure it should be said he had achieved the Longitude by a lucky hit, rather than a correctness that might be relied on had the voyage been continued round the world. Nor did he stop here, for we read — "Your Memorialist further presumes to add; that if, after these two trials, this honourable "Board is not satisfied, they may either order a repetition of "the same experiments, or diversify them in what manner they "shall judge proper; moreover, if afterwards it shall be "thought necessary, when a convenient opportunity offers, by "Captain Campbell being at liberty to go, they may put in "execution the plan proposed by the Council of the Royal "Society, either with the Watch alone, or with that & the "Clock conjointly." to p 20 W

There was something chivalrous & romantic, ~~xxxx

of D^r. James Bradley cannot be mentioned without respect. It occurs as one of the five signatures to the earliest recommendation of the Candidate [redacted], in 1735, to the attention & encouragement of the Commissioners. He is seen again, amongst the twelve mathematicians & fellows of the Royal Society, who, in 1746, volunteered to express their high opinion of the mechanism for finding the Longitude; & [redacted] could not but conceive him very favourably inclined towards his Invention: yet, at this time, the Doctor, [redacted] alas! is humane nature, showed him his alienation of mind without disguise. — From ○ to 25 [redacted] Harrison & his Son both attended this Board, & on their return home, called at M^r. Bird's, to see the instruments which were to go to take the observations for the trial. They here met with D^r. Bradley, who had also been at the Board of Longitude, as being a commissioner. The Doctor seemed very much out of temper, & in the greatest passion told John Harrison, that if it had not been for him & his playing Watch, M^r. Mayer & he should have shared ten thousand pounds before now. — This gave the Candidate [redacted] an opportunity of seeing what sort of a friend D^r. Bradley had been at the Board, who formerly had been one of the first, & had, but now all interest seemed to be the principle.

insert at □ Lastly, he was one of the three Commissioners deputed by the rest (the other two being Sir Martin Folkes &

~~[illegible]~~ after the Timekeeper had been in readiness from the beginning of March, the First Lord of the Admiralty, mindful of the delays & vexations he had formerly experienced from the Chinese, & (by his own account) cut for which "he might have captured two rich prizes instead of one", summoned another Board of Longitude, on October 13th 1761. the day after which John Harrison received the instructions for his Son's voyage, who had applied to be sent to Jamaica in the Deptford man of war, then expected to sail shortly, to take out a new Governor to that Island. And on the 20th of this month, William Harrison set off for his former station, at Portsmouth, with the fourth Timekeeper: the third being left behind, either because it was not wanted, or that it would have occupied an uncertain time to take it round by sea. After having punctually conformed to his instructions at that place, he went on board the ship November 16th & on the 18th they proceeded to sea with a large convoy; but meeting with hard & contrary gales, it was the 28th before they cleared the land. These delays however were so far favourable as that by the change from the December cold of our shores to the climate of Jamaica, they afforded a test ~~[illegible]~~ of the ac-

20 D. Smith) to inspect & report the merits of the third machine. Which report was highly creditable to the abilities of John Harrison, who from these premises

as, after an interval of near 70 years, There are many persons to whom they may be novel, & who would desire to be saved the Trouble of turning to indexes &c consideration is had below for such an enquiry.

Minor Note for Page 19 at △ Tobias Mayer, a Professor at Gottingen; inventor of the Lunar Tables: for which the Commissioners of Longitude in England, ~~with~~ proper liberality (the Author desires to say) voted him £3,000 out of the money at their disposal: ~~[illegible]~~ this he did not live to receive, but it was paid to his widow.

Note for p 18 at ∨ These handsome offers do not appear on the minutes; an omission which would not have been noticed mentioned, had not subsequent circumstances led to the inference that it was not accidental.

D

Chap. 3.

-fects of such a transition on the Timekeeper. The principal occurrences of the voyage, as connected with the examination, were given in not of the periodical vehicles of intelligence in that Day, but ~~there are many parts of the work where~~ ~~it is then they may be quoted now they are in~~ ~~noted below. It may suffice to state here, that~~ The error of the Timekeeper, according to the Longitude of Jamaica as determined by observations of the transit of Mercury in 1743 which had not differed from those taken at London & Paris more than 12 seconds was 5" which at that island would be little more than a geographical mile. The homeward voyage of the Merlin, an old sloop of war, with difficulty kept afloat in a series of tempestous weather, & condemned shortly after her arrival, was not so ~~[illegible]~~ eminently favourable in its conclusion, the error being 1'. 54 1/2", answering in the latitude of Portsmouth to about 18 miles: which however was not much more than half the standard reserved by the original act, that being, thirty miles. Just a degree

Circumstances so favourable to the scientific adventurer, who had staked the labour of so many years on this anticipated result, yet disappointed him of the

It may be said not to have been in the nature of [redacted] worldly affairs, that a board [redacted] often presided at, & always directed by mathematicians, who associated the parliamentary reward with lunar diagrams, should, without umbrage could, one, such an accession of honour & emolument to the mechanics — who were stepping out of their relative importance which they were always willing to concede them. While there could be no doubt, if Time was given to non scientific men, to mature their discoveries, his supporter, who filled that astronomical observations, with the assistance of Professor Mayer's tables, would solve the problem so much agitated: and, if so, could it be denied that they were at least entitled to share the premium? But D.r Bradley although

recompence the Legislature had guaranteed. ## [redacted]
[redacted] avowedly hostile to mechanics in his latter
days, as if the natural vice of age had superceded his
better resolves, never could have committed himself on
the subject like his successor, Nathaniel Bliss A. M.
Savilian Professor of Astronomy at Oxford [redacted];
who with far inferior abilities, in conjunction with [redacted]
[redacted] the Plumian [redacted]
[redacted] chair at Cambridge, at the first Board of Longi-
-tude, June 3.rd 1762 / two months after the return voyage /
"found great fault with the proceedings of the junior
"Harrison, on the late trial," which, [redacted] their censure
was embodied in three objections; two of which, singular
-ly enough, impeached the practical knowledge of these
"professors of abstract sciences," as our Candidate called
them, & the third was irrelevant. They were —
"1.st [redacted] That the equal altitude instrument when at
"Portsmouth had been removed from the place where the
"morning observations were taken, to another where those
"for the afternoon were had, & that consequently
"the observations so made must have been erroneous.
"2.ndly That observations of equal altitudes, of one
"Day only, were not sufficient to find the time at any one place

much

"as another." Mr. John Bird, the maker of the instrument was then called in by the learned gentlemen, & his opinion, which William Harrison had imagined would have set them right, was, on the contrary entirely in favour of both objections; but it might have been difficult to have complimented the optician on his disinterested-ness; as it is found, from the minutes, that his bill for 113£ 10/ was allowed, & ordered to be paid at the same Board. 22 O It next appears, that William Harrison, finding it in vain to argue with the Astronomer Royal & his col-leagues, thus supported, went, by the advice of Lord Macles-field, then a Commissioner as President of the Royal Society

" 3.rdly That he had not followed the rules prescribed
" by the Council of the Royal Society.

William Harrison, [redacted] in surprise at these objections, [redacted] answered, " that had they been of this opinion when they
" gave him his instructions, it should have been men-
" -tioned to them how many observations of equal altitudes
" were really necessary, & then, if possible, he would have
" got them; but he believed it was the opinion of every
" person conversant with those things, that observations of
" equal altitudes on one day, were as sufficient to take
" the time for the purpose of the examination, as though
" they had been taken on ever so many. As to the instru-
" ment being moved from the place where he took the
" morning observations to another situation, for those of the
" afternoon; as it was one which depended entirely on a le-
" -vel, it certainly could be as easily adjusted in one place
" [redacted]." To the third objection he could answer —
" that he never saw the rules they referred to — that he had
" strictly followed the instructions & directions they sent
" him by Mr. Stephens."

Thus fortified, when at the following Board, August 17.th William Harrison would have explained on these objec-
-tions, which he told them " had given him great uneas-
-iness." He is interrupted by the Astronomer Royal, who said, — " You need not take up the time of the
" Board with that, Sir, it being a point which we are
" now satisfied about." ☐ Page 126

Then " the adventures of John Harrison " as we may

23

to Greenwich, with the instrument that had been used before together with Mr. Green the assistant at the observatory, where he & Mr. Robison, the astronomer who had been appointed to accompany him in the voyage, took 44 observations of equal altitudes at different sittings; from which it was nearly manifest that the apparent noon never differed more than 2 seconds from that found by the transit instrument. The first objection was thus done away: and, with regard to the next, any one of the 44 observations proved to be correct within a second of what the whole added together & a mean taken showed.

rather than intentionally,

Note at ✠ 24

△ They were country residents, & it is rather awkward, that their nominator was out of town, in the interim, without his engagements being explained.

The Computers was

any

call them, disclose the curious but awkward fact, that two learned Professors from Oxford & Cambridge respectively Lam & Isis were but imperfectly acquainted with one of the commonest instruments in the hands of astronomers! A circumstance which had it been in the way of D.r Knox might have been adduced by him ~~to countenance~~ verify the caricature he was supposed to have given of those learned seminaries, in his Day.

In the journal, often quoted, a particular of importance was overlooked, which, probably by accident, ~~[illegible]~~, appears on the minutes of the Board, June 3.d This was that when the observations connected with the voyage were given to three Gentlemen to calculate, they were all nominated by the Astronomer Royal. Consistently with which admission, it ought to have been stated, that an application from the Candidate to be allowed to name a check on ~~[illegible]~~ refused; an outrage of no common description, when the magnitude of the stake is considered. Without the slightest desire to reflect on the Gentlemen in question, such an interdict was so contrary to English habits & ways of thinking — to the analogy in any other court, that as many volumes as were written to explain the Secretary

24 Note at + A learned Franciscan father expounded them in favour of his own theological mystics [redacted] Thirties in 13 volumes; & no doubt, the question might have been thought set at rest, had not a still more learned Dominican interpreted them vice versa in 15 tomes & fifteen tomes.

of These

but the boon conceded was

-ers. And

of the Council of Trent[†] will not overcome the difficulty of assigning a motive for so illiberal a conduct, except the party jealous of the success of the mechanics desired to keep the cards in their own hands, & knew how to shuffle them scientifically. — The mathematical nominees, it should be added, were all strangers to the two Harrisons.[Δ] who therefore could not form an opinion of their qualifications, & they had no confidence either in the judgment, or the candour, of the nominator. But the worst feature in this deformed proceeding, ~~& for which these scientific swine, who emulated neither Lydiat, nor Galileo, should have been sent to rummage the archives of the star chamber for a precedent, if that moment of the Stewart dynasty could have furnished one;~~ was that contrary to that unlimited publicity which obtains in this country, in all questions affecting the life, liberty, or property, of the subject, they refused to disclose the grounds of a decision on which £17,500 depend: not indeed in a literal acceptation, such as might have become the commander of the faithful when he imparts the Prophet's pleasure to his followers accordingly no allusion to it will be found on their minutes, which are always read to those commissi

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-coners that attend, or are presumed to be so. As they did not chuse to give their own version of the treatment John Harrison received, & for which Newton would have sent them to Coventry, his amount of it may be allowed to derive an increased interest from their omission. Matter thus discovered. — Messrs. Harrison "both attended this Board, on the 17th & after the Commiss-
"-oners had sat some time, Mr. Ibbetson, the Secretary, came "to them in the outer room with some papers in his hand & "said to John Harrison the Candidate, — I am ordered by the "Commissioners to let you look at these papers, they are the "computations & opinions of Mr. Howe, Mr. Raper & "Mr. Morris, & the Board desires that you will look at "them. — John Harrison asked Mr. Ibbetson, if the Commissio-
"-ers meant he was to take & look them carefully over, or did "they mean that they were then to look at them? Mr. Ibbet
"-son said, he was ordered to let them look at them, & to take-
"them back again. To which Messrs. Harrison both replied
"It would be to little purpose to look at pa-
"-pers which seemed to be so long, & of so much consequence
"to them; therefore they both hoped that the
"Board would please, either to give them more time, to
"look them over, or oblige them with copies. — Mr. Ibbetson
"went back with the papers."

Now it not that to look at, & to examine, as re-
-gards arithmetical calculations, is synonimous either with scientific men, or those of business, in every case, the strange scene above, in which the Father & Son were tantalized with

a sight of papers of the greatest consequence, which yet it was in effect denied them to understand, might distress the notion. The transient view & measured glance by which they were desired to profit, if they could, to be acquainted with Addison's pages, which the presiding Ge-
-nius do not seem to have set much store by, may re-
-call the story of the gentleman, who, from a habit of turning over books with great expedition, & by frequent consultations with an ingenious joiner, contrived a circular machine, on which they were placed, in such a manner, that in the most rapid whirl he could catch a sentence out of each. The contributor of this humour could not have foreseen it would one day be illustrated to a certain extent. Poetry, Romances & political in-
-telligence, seem best adapted for such an evanescent perusal, because the imagination of the reader often supplies a sentence & by anticipation, & sometimes a paragraph; but didactic works, metaphysics & above all mathematical corollaries, require calm & delib-
erate attention very different from that excited by Mrs.ᵈˢ Bliss & Shepherd on this occasion. to Ap 153
And what with Mr. Crofton, say & Dunstan Potter for or Mr. Barrow

correct n

reasonable, in his own opinion, th

a Sherry Andrew or [illegible] some boy clerk at Lob Sherry,
than for a Secretary of the Admiralty, be it. He pre-
-tends that they had no right to grant copies, or allow
[illegible] (other than momentary) inspection without
leave of the gentlemen concerned, is effaced by the
consideration that they never applied for it; although
it was the interest of the computers that all should ap-
-pear fair & open on their part; & indeed D.r & C.r accounts,
regular entries, & balance sheets, are no more kept back
in science than in trade, except in smuggling transaction,
fraudulent bankruptcies, & affairs of similar repute
so that to secure with triple bars & bolts these "secrets
"worth knowing" (if we may borrow the title of a comedy) argued "something rotten in the state of Denmark."
And it is surprising the individuals alluded to did not
come forward to exonerate themselves from any partici-
-pation in so dishonourable anomalous a mystery. For, in the common
estimation of things, no man likes that any [illegible]
[illegible] communication of his should injure or disappoint
another in his reasonable expectations, without his know-
-ledge. and that John Harrison's expectations were
[illegible] is conclusive, because he had the same mate-
-rials to calculate from that they had, & he understood

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the subject as well as (perhaps better than) the learned professors, of whose practical knowledge a specimen was lately seen. But the unprecedented hardship of not being allowed to name a computer on his own part, when common equity required that an equal number should have been appointed on both sides, left him without redress, except by the public opinion — in which, as it was notorious that the machine had fully answered the purposes, & far exceeded the expectations of those for whose use it was intended, it followed, that a decision against it, by rule & method, of which the particulars were concealed like a foetus in utero, could excite no more conviction than would now the diagrams, or the logic, of those Philosophers who formerly defined the law of projectiles as being in a perfect curve "although the flight of an arrow from "a bow, or of a stone from a sling, might have shown "them the contrary, if they would have attended to it." — Hence as no public man willingly incurs censure, if it can be easily avoided, what could be the motive, we repeat, for a concealment which made the proceedings of the commission of Longitude, unlike those of any other court of enquiry, of which

Turnbull knew little of history, or he would not have written
a comparison that

good fittings; notwithstanding

that could grapple with

-ever denomination before, or since: except under the Stewart's & that in prosecutions by the crown. — Our me-

~~chs unparalleled in perplexity, by which an~~
~~act of [illegible] competitor, for the reward instituted on~~
~~the great discovery, sat in judgment on the claims of one~~
~~in was now in full operation here. To the Lack of~~
~~Manifield Board selected as mathematician~~
~~this~~ the Astronomer Royal, from the chair directed
the whole proceedings as to him seemed [illegible]
[illegible] he was unreservedly accused by the candidate
of having an immediate interest in the question. Cer-
-tain it is that by his influence with the chosen for this
triform inquest, the mystery, like that of the Free Masons,
was known only by signs among the craft; the calcu-
-lations were so hermetically sealed, that John Harrison
could neither by public application, nor by private fa-
-vour, with all his solicitude, get a proper sight of them
till three years after, when Parliament, the only power
[illegible] this imperium in imperio, broke the
spell, forced the iron chest in which these documents were
-e to be deposited, & placed them to half the world by
their being ordered to be laid on the table of the House of
Commons. It then appeared, he tells us, that two of these

the Author apprehends, could not have ammmmmm

computations were inconclusive, proving nothing either one way or another, & the third was in his favour. — Was this then the secret which the lunar party were so averse to submit to public scrutiny? — However the question may be answered, the importance of it diminishes before the still more important consideration — that a committee of the House, having gone into evidence on the subject, had it satisfactorily proved to them, "that the Timekeeper had kept the Longitude [redacted] both going & returning from the West Indies "considerably within the nearest limits prescribed by the "12.th of Queen Anne." And this being widely at variance with the decision of the Commissioners, who, in effect, & with reference to the terms of the act, though they evaded the direct question, had voted the machine not to have succeeded in either trial within 60 geographical miles; it may naturally be asked — why were no steps were taken to restore him his legal right, thus admitted to have been established, in the opinion of that House, on & from the 17.th of August 1762. But a Parliamentary vote, [redacted] rescinded that of the Commissioners without a bill being brought in for the special purpose; & such a measure, however worded, would have been construed as a

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effect of a hint that [redacted]
could not be mistaken

to those

course of the Board of Longitude. Again — it may be asked, were forms to stand in the way of, to be opposed to a necessary act of justice? & would the House have compromised its dignity, if it had sent a message to the commissioners by the Speaker, who was one of their number, desiring them to revise their proceedings at their meeting on the above date? The probable [redacted] from the metaphorical wolfens, would have been, that the disinterested part of the Board would have enforced the propriety of allowing the candidate [redacted] one or more computers, whose calculations being compared with those before given in, the question might be more equitably decided. to page 126 Leaving the field of conjecture open, however, what will the commissioners of longitude of the present century think of the chairman & interlocutor at this important Board? William Harrison, who had imagined the three objections occasioned the difficulty in the way of a favourable result to the business, having said as much, in respectful terms, on finding they were acknowledged to be unfounded, was answered by a Professor of Astronomy, ditto of Geometry & Astronomer Royal "Supposing the watch had answered in this trial, is that any reason it would do so again? But we do not know that it has answered, for we are not acquainted with the Longitude of Port Royal in Jamaica."

35

this the

assigned

The first part of the reply is remarkable for the real or affected ignorance it shows of common mechanics, since any person whose pocket watch has gone well the preceding week, expects it will the following; no known cause to the contrary: & the logic of this accomplished Commissioner, if allowed, would have utterly frustrated the reciprocal benefits of the act of Parliament towards the public & the Discoverer. For after a third successful voyage, it might be asked again — "is there any reason for supposing it will keep time in a fourth & so on." Absurd as this objection was, it yet coincided to the letter with the Declaration of the Commissioners, "that the experiments [i.e. the outward & the return voyages] made, with the Timekeeper, have not been sufficient to determine the Longitude at sea." — Here, then, was reasoning on which was founded the necessity for a third & indefinitely of a fourth trial, & were they not dropping the Scientific Question & adopting them, to assume a Legislative one, the act not having ordered more than one voyage or experiment?

The other moiety of this orthodox distinction is not less remarkable by controverting contravening sub

the substance of it appears on the records of the Board
23d. October, 1761 in this form — "a paper signed by Mr.
"James Short, one of the Members of the Council of the
"Royal Society, was read, setting forth, — that the Dif
"ference of Longitude between Greenwich & Kingston in
"Jamaica is as exactly determined by several observations
"mentioned in the said paper, as it well can be by the
"eclipses of Jupiter's satellites." — This paper it behoved
them to acknowledge the source of, but all consequences were disregarded, as if
"neck or nothing" was the sentiment uppermost, & certainly
order of the day
them at once
they might.

— Ade Description

silentio the important particular, that the Longitude of Kingston in Jamaica, at a given Distance from Port Royal had been determined by the Transit of Mercury in 1743 a copy of the observations of which with the correspond-ing ones in London, taken from the Philosophical Transactions, & also of other astronomical observations by eminent mathematicians, both abroad & at home, that bore on the question, had been stated to Lord Anson in a letter, by Mr. James Short F.R.S. & one of the Council, a month before the ship sailed from Portsmouth; & which his Lordship communicated to the Commissioners. ~~but the demonstrations that elicited were rejected or suppressed by the University gentlemen, &c.~~ like Mr. Shandy & his prototype Martinus Scribleras, have been accused of a predilection, if not for Christian, yet for surnames, & none could be a worse passport to their attention than that of Mr. Short, for reasons which we waive here. For — granting them to have been ignorant of their trade supposed avocation, a reproach which, to serve a present purpose, they seem to have been indifferent about to, the case of John Harrison then becomes at once of an unprecedented & most reprehensible. Since, if they knowingly sent him, or his son, to an Island, of which they afterwards despised not to

made their ignorance of that ~~this~~ point ~~their ignorance~~ a plea

-dy to prevent them from

who, ~~had sufficient reason~~ to be whatever was their party in
the affair, had sufficient reason to be out of countenance
at this specimen of the progress of science & this
at a national seminary to which the British public is
accustomed to look up with sentiments of deference.

cause of

[i.e. as the return voyage, that of the outward one was very trifling] was only about half

laboured

know the Longitude, & yet [redacted] ground for declaring the treaty null & void, their proceedings should have been interrupted by higher authority, since it is clear they were swindling him out of his time & labour on such inconclusive pretexts: which even the power of Parliament itself, considered by Montesquieu as the highest on earth could not have sanctioned. It is extraordinary then that this weak & interested man, for he seems to have been both, was not interrupted by the more intelligent part of the Board, [redacted] "the right of search" before the treaty was signed.

This circumstance it was, i.e. the Longitude of Jamaica being unknown, which became currently reported at the period referred to, as being the principal so severe a disappointment to the candidate. But it was coldly received, & pointedly commented on; for, said they, "Let the Longitude of Jamaica be what it will, it is "certain the error of the Timekeeper [redacted] "of what the act allowed, which was 30 miles." — To a [redacted] objection from the same quarter, that "possibly the watch did not keep equal time during "the whole voyage" it was answered, replied, "that the

35

38

Mr. Harrison

the scientific world found when once this invented

of those

their

by its

to his judgment, on this occasion,

act did not require it should — that the errors would
never be great, which could compensate each other so
well at by the time of the ships' arrival." and finally
"That the finding the Madeira's, the Island of Desia-
-do & the other Islands, exactly as foretold by [redacted]
in the passage to Jamaica, & the correcting
the reckoning of the Ship in the return home were in-
controvertible proofs of the correctness of the machine
& of the perfect confidence the mariner could place
on it." to 0 ℔ 39

Whatever were the objections, to which we now return,
yet that the practical success of the candidate, which was presumed
to insure him the largest reward, should be defeated
by some undefined opposition in theory, could not be
expected to gain the suffrages of the public, & least of
all those of seafaring men, in favour of [redacted]
order of things. Accordingly the [redacted] opinion [redacted]
[redacted] who could make the case of John Harrison
his own, supported his fair claim; & had all the accu-
-mulated knowledge of Oxford been exposed
[redacted] representative at the Board of Longitude, it
would have excited no more deference [redacted]
in any man who had recently sailed in the Deptford, or

36

37

That

Mon'd

the Merlin, this might have been comprised in the exclamation of Festus "thou art beside thyself, much learning hath made thee mad."

So great was the disparity between what had been achieved, & the expectations of the framers of the act of 1714, that by one of the provisions it is directed "a moiety of the reward shall be due & paid when "the commissioners, or the major part of them, do a-"-gree that any such method extends to the security "of ships within eighty geographical miles of the "shores which are places of the greatest danger; & "the other moiety when a ship shall, by appoint-"-ment of the said commissioners, sail over the ocean "from Great Britain to such port in the West Indies "&c." A criterion seems to be afforded here by which to grapple with the subject; for as the learned gentlemen would not have sought to defend such a paradox, as the public estimation would have made it, to assert, after what had passed, that the Timekeeper was not equal to finding the longitude within 80 miles of this, or that shore; so, if they admitted the converse of the proposition, this clause was imperative on them to have paid such moiety of the larger reward

the Inventor as a

~~Note at Page 31 A Passage in the Journal under~~
~~the present date may be fitly transcribed.~~ "John Harri-
~~son Discerns~~ began making the small alteration in the Time
" keeper which he mentioned at the late Board: & [redacted]
" It may be here observed, that this alteration was not ow-
" -ing to any experience he had gained from the late
" voyage — no: he knew of it before the [redacted] ship set sail,
" but had not time to put his thoughts in execution; & he
" was at that period satisfied it was exact enough to come

without Delay; it being Due, & enjoined to be paid, in the words of the act. — Instead of which, after Declaring "it appears to them that the said Watch machine, although not yet found to be of such great use for Discovering the Longitude at sea as required by the act of the 12th. of Queen Anne, is nevertheless an invention of considerable utility to the public." they voted [redacted] him, & not as of right, one eight part of the specified reward he had so well earned, by the declaration of the sailors. Of this £2,500, £1,000 was payable on the continuance of himself, or some person deputed by him, returning [Bee volente] from a second voyage to the West Indies.

A passage in the Journal, under the present date, may be fitly transcribed. — "Mr Harrison directed

[redacted]

~~1 Page [Interlining] He now began for the first time to experience practically in this contest the force of the scriptural adage "men do not gather grapes from thorns, nor figs from thistles." And that it was not so surely in the nature of mankind, officious, & Bountiful & Compassionate provided it was given by extraordinary hands~~

within the Act of the 12.th of Queen Anne."

He meant within the nearest limits of the Act; and as this confidence was fully borne out by the result, his mortification must have been in proportion to it at the treatment he received, in being refused a check on the computations, & all any knowledge of the grounds of a decision in Theory so contrary to matter-of-fact; which no casuist who

—— a rope of sand can twist
In tough as learned Sorbonist,

could keep out of sight. They would not listen to his entreaties to them to revise their proceedings; & —— which is surprising strange, he was "then again asked, if he had any objections to the resolutions that had just been read to him?" —— There were two. By the 1.st he was required, either in person or by deputy, to make another voyage to the West Indies, which we pass over. By the 2.d he was to be paid, conditionally, the sum just mentioned, as eight parts only of that which he regarded as his due. —— To expect him to approve of, or to have no objections to such a resolution, by whomsoever drawn up, when they well knew he thought himself undeniably entitled to the whole; & when their refusal to explain cannot be viewed without some misgivings of suspicion that the opposing party themselves (in their private conferences) admitted as much, had no precedent except at the Tribunals

new without umbrage such an accession of honour & emo-
-lument to the mechanics who were stepping
the relative importance which they were always willing
to concede them. While there could be no doubt, if
time was granted to more scientific men to mature their
discoveries that lunar observations with the assistance
of Professor Mayer's tables would carry the longitude
with a high hand. And, if so, would it be denied
they were at least entitled to share the premium.

This reasoning argument is not gratuitously
; for Chas M.r Mudge of Lincolns Inn pub-
-lished "a Narrative of Facts &c"; his Father's contem-
-porary & rival, M.r Arnold, on seeing his pamphlet
came forward & offered to depose on oath, that D.r
Shepherd had told him, in presence of his wife, "it
"never was intended that Timekeepers should gain
"the reward." And though it may be objected that Ar-
-nould characterized at once by frankness & assurance
possibly had a reference only to the Act of the 14.th George
3.rd which was calculated effectually to guard any fur-
-ther concessions of the mechanicians, yet the conduct
of the Astronomer Royal,
whose second & bottle holder Professor Shepherd may

of those countries, not considered as civilized, where sometimes the sufferer is asked such questions in derision.

expectations they entertained of successfully opposing the work-

~~to recognize at [illegible] the present period left it~~
~~to doubt but to delay could protract & shuffle off~~
~~the payment of the reward by every expedient device almost~~
~~power conceivable only by Parliament & the above~~
~~which has never enquired into enabled them to adopt~~
~~might be regarded as the opinion of the resolves emanating~~
~~from Brazen Nose or Catherine Hall or what college or~~
~~common room we know not.~~

~~Dr Bradley though~~

Page 35 interline after — conference the mariner could / there is it — Nay, paragraph This reasoning, however pertinent, did not apply to the real state of the case, which had less a reference to the merits of this, or any other machine, than to the discomfiture with which the committee juntos were threatened at seeing "a mere "machanic" snatch up such a largess, & with so much ease, than there were sufficient circumstances to conclude that if time was only allowed to some committee man to devise his observations to practise it on, with the opinion of Professor Maskelyne's tables would soon shew that watches were not entitled to the last moiety & emolument of discovering the Longitude in that event the committee aforesaid would undoubtedly have entitled to share the reward with the fortunate claimant. — The enquiries are not conjectural; for the author

about this very time D. Muskelyne

were wholly unapprized were quite

though well acquainted with the jealousy of the reverend gra-
-duates (who seemed to have irrecoverably lost sight of the
last commandment in the decalogue) was as much surpri-
-sed as the reader may be, on find discovering that D^r. Maske-
-lyne, then a young man as enthusiastic in pursuit of the
longitude of (& of the money too) as S^t. Francis had been to con-
-vert a different class of unbelievers, was actually engaged
in a private voyage to S^t. Helena, in a merchant brigg,
principally for this special purpose. That a prudent de-
-gree of privacy was observed in the transaction, would ap-
-pear from this; that when he was afterwards recommended,
by D^r. Shepherd, as a fit person to take the observations
connected with the Timekeeper at Barbadoes, the Harrisons
appear to have been ignorant of this lunar speculation;
while the Doctor, instead of explaining, merely introduced
him to them as a gentleman skilled in the mathematics:
Otherwise, as will be shown found in the sequel, they would
certainly have objected to his being employed on their
trial, he being himself a candidate for the reward. — By
any

41 continuation of Note from page 85

some particulars chiefly relating to the difficulty of finding a proper place at Kingston to take the requisite observations — They showed the error of the Timekeeper, as said above, to be scarcely beyond a mile. [illegible] -rison, having first had a certificate from Governor Lyttelton, the Captain, & first officer of the Deptford, attesting that the box, with the Watch, had not been opened but in presence of one, or more of them, embarked in the Merlin, with Mr. Robison, (the astronomer attached to the examination) the Naval Commander on the station having told them that if they waited further, he believed there would not be another ship of war to sail for England before the month of June.

The Timekeeper, by the advice of Captain Bourke was placed on the cabin counter; — for he said, if it was to blow hard, that would be the likeliest place in the ship to be dry. — No particular circumstance seems to have occurred the first three weeks, then a gale came on, & the ship sprung a leak. It continued to blow very hard, with little intermission, for upwards of three weeks "During which period it was with the greatest difficulty that "William Harrison was sometimes able to keep the "salt water out of the box which contained the Timekeeper, "for in this continued storm they were forced to lie to "for the most part, & at those times the ship experienced such

See 116

Two days after they were concluded, William Burr

Chap. [illegible]

~~Causes leading to the Prosecution of the Act of Parliament the 3d of George 3d. — Proceedings thereon — rendered abortive by a Gentleman nominated of the separate Commission for carrying it into effect.~~

Chap. 4th

In November 1762, John Harrison, "well knowing from long experience, how slowly he should be able to get on with the proceedings necessary towards another voyage," [illegible] waited on Mr. Grenville, "the first Lord of the Admiralty, praying him to appoint a board of Longitude to take into consideration what ought to be done before the next trial of the Timekeeper. But at this time," he continues, "several of his friends were very anxious that he should make the invention known before his Son proceeded to sea, lest by any accident it might be lost. This, their suggestion, he was very loath to come into, on account of the great delay he thought it would be attended with." — The zeal of his friends on this head

point

+ Is this to be explained, we would ask, by Mr. Grenville not being a person of seafaring habits; otherwise would the remarkable case of the Beaver sloop have been so soon forgotten by a First Lord of the Admiralty?

minutes & proceedings &

seems to have outstript their Direction; for they ap-
-plied to Mr. Grenville, & that repeatedly, without
having first apsured themselves of the concurrence
of the Candidate; till at length the first Lord of
the Admiralty " seemed more inclined to this Disclos-
-ure being made first, that he was to [redacted] the
" Timekeeper being taken on [redacted] a second voyage
" (though he did not seem very anxious about ei
" -ther. +)

In an instance of the Adventurer's indifference
towards the new proposal — having been furnished, by
order of the Lords of the Admiralty, with a copy of the
[redacted] of the Board of Longitude of the 17th August,
he attempted by petition, & in consequence of the evidence
in his hands, to induce the Commissioners to rescind
their resolutions of that date, though without preju-
-dice to any further trial that he had to propose; if
they were not satisfied of the incorrectness of their report
on the former voyage, after examining his statements & test
-imonials. But this solicitation was given in, [redacted]
[redacted] nothing could be done till another Board
of Longitude should be called; to procure which "Wil
-liam Harrison had attended almost constantly every Day or

"For all the trouble he had given

being probably remonstrated with by one ~~[illegible]~~
or more of the Gentlemen, who showed him it would be impos-
sible to

" Mr. Grenville for three months, but all to no pur-
" -pose. — If left to his choice, he would, like his
father, have preferred to get a new trial immediately,
if that was necessary; while, on the contrary, several
of their friends, as before already observed, were for ha-
-ving the invention made public first. The effects of
this discrepancy & want of coincidence between him &
these his friends, joined to the long & fruitless attend-
-ance he had given at the Admiralty, at length led to
such a serious altercation between him & the First Lord
of that department on February 10.th 1763 that being con-
-siderably disputed, he went next day to Sir John Cust &
" some other friends to inform them of his full determi-
" -nation to give up altogether the further prosecution
" of the affair of the Longitude; to state the causes of
" it, & to return them his humble thanks
" from. They advised him not to despair — but he repeated
" his determination to have nothing more to do with it."
to page 65
— Information of this, it is likely, soon reached
the aristocrat at the Admiralty, who, ~~either expecting~~
~~[illegible] he had won, or finding he could not~~
make out a case for the public, sent a message to
the junior Harrison on the 14.th of the same month
to inform

world; but it carries with it an impress of meanness, which the real gentleman would sedulously shun the reproach of; & the present transaction, impartially in common with others no ways reputable to those concerned in them, is given to the to him public,

from the Journal of this genius, aided by his Son, could imagine

unguarded

-cautt, as a hero is before his valet de chambre.

that a board of Longitude was ordered to be held on the 26th. "To that" as the latter observes "he got "more by lying by three days than he had done "by three months close application." — This indeed, in similar circumstances, is frequently "the way of the "world;" and the ~~[illegible]~~ ~~particulars are taken often illustrates~~ it is enough to teach public men more circumspection; for not one of the parties brought forward ~~[illegible]~~ he was sitting for his likeness to two ill educated mechanics; before whom they seem to have been as much without disguise as men commonly are in their own families; or — according to the illustration of Rochefoucault

The candidates friends continuing very anxious that the invention should be laid open before another trial was engaged in "prevailed on him, once again "his will," (those are his words) to send in a memorial two days before the meeting of the Board. In which he proposes — To discover & make known the principles & construction of the Timekeeper, in such manner as shall enable other workmen to execute the same, on his receiving, after such disclosure, "such an advance of "money as the honourable House of Commons shall

sum meet. — ~~[illegible]~~ The priv-
-veleges of the Invention viz, of compasses were
& his heirs for a certain period. It was provided
also — that on producing satisfactory evidence of
the accuracy of the Timekeeper in another voyage,
the remainder of the reward should be paid him,
or his representatives. And, lastly — that on the In-
-vention being thus made public, no other person
should shall be allowed to claim the reward, by means
of any Timekeeper, till the result of the trial, or trials
in which the memorialist engages, is finally determ-
-ined.

At this Board on the 26th. after some time Mrs
Harrison was called in "when they desired to shew that
"notwithstanding the above representation & proposal,
"yet they had much rather the Commissioners would
"apply to Parliament in order to get a new Act, to ap-
"-point another sort of Trial, if necessary, for many
"might be thought of on that would do more justice
"to the Timekeeper." — This proposition, although so hon-
-ourable to the Father & Son, for it was contrary to their
interest, in proportion as it favoured that of the pub-
-lic, is not mentioned in the minutes, but will be

47

very proper to be kept in mind, for reasons that may by & bye be obvious. — The opinion of the commissioners, which will hereafter appear remarkable, from not particulars under present circumstances, was that "It could not be done; it being almost an impossibility to get an act of Parliament altered though it were for the public good." — Thus situated he put himself under their Direction: which was to apply for a Bill to explain &c. "Finding he was forced "to come into the measure," as he informs you, he got a petition conformable presented to the House of Commons on the 2.d of March.

This proceeding, in which his acquiescence was so reluctantly extorted, proved a principal source of the vexations that embittered many periods of the latter part of his valuable life, & in all probability frustrated much of the benefit that might have accrued to the civilized world from his assiduity & inventive faculties. Yet, as it is often observed that good may come out of evil, so the domineering spirit of one individual, & the petty passions, views & jealousies of others, whom the legislature in Queen Ann's time had never contemplated

47 continued

46

would vitiate the [redacted] judicial function vested on them / while the naval part of the Board, & the Treasury adjuncts, might be regarded as so many mutes / at length, by their consequences, elicited "A Trait in the Character of George 3." which will compensate the reader for being thus detained.

In the preamble to the act of Parliament sought for, it is recited, among other particulars, "that "the said John Harrison would not by any means "decline a further trial of the instrument, or Timekeeper, "which he has invented, before the principles & construction thereof shall be made known; but that "his present advanced age, his impaired sight, & "the danger of the voyage to the health & life of "his son, upon whom alone this affair will depend, "may risk the loss of the Invention, to the disad-"vantage of the Petitioner & of the public." — From this it is plain [redacted] the Act was not intended to retard the trial so soon contemplated to take place; that it was not proposed at this time to make other Watches, but to disclose & explain the principles of the one brought forward, by means of drawings & models accompanied with verbal & written explanations —

if signified to the Candidate, amounted ~~mmmmmmmm~~

it behoved them therefore

what he should do.

From ✠ Interpolate at ++ This opinion [illegible] to a command) was irregular. Our adventurer, [illegible] although his age was 64, had shown no desire to precipitate the final experiment, but quite the contrary; ~~as there is reason to believe he would have achieved the longitude rewards ten years before~~ [illegible] to leave it entirely to his judgment, [illegible], & was out of their province to prescribe [illegible] to ✠3540. ~~Whether words by [illegible] so done, it may be said, had not some members of the Commissioners of the Board (of which more in the sequel) made it desirable to excite delay. Dr. Maskelyne (for we estimate him for convenience, though not then D.D.) who afterwards became avowedly a candidate for [illegible] the rewards was about this time either engaged in, or projecting, likewise a private voyage to St. Helena in connection. That it was wholly at his own expence, there is no evidence to disprove, [illegible] but it was, adjunctively, to the Doctor way then no rich man: it is indeed dubious, that he provided himself out of his own pocket with the costly instruments requisite for his undertaking.~~

On the 18th July 1760, the Third

Note to Page 20 at ○ A letter by William Harrison to his Father, dated — Funchal Roads, Madeira, December 14th 1761.

48 continued

principally

on board were

and

subtilties the information sought

The Deptford of 50 guns, The honourable Captain Digges commander, weighed from Spithead November 18th. & after touching at Dewsport, sailed from There on the 28th with 43 ships under her convoy, several of them of 20 guns. On the 3d. December it blew hard, & in the morning the Deptford sprung her foremast; it continued to blow hard till the 9th. On the 6th. December, The ship was 15°. 19′ west from Portsmouth by the Timekeeper, but by the Master's reckoning, 13°. 50′; which was near the difference of a degree & a half from each other; & most of the reckonings almost as far to the eastward as the Master's, though none of them quite so much, but all much to the east of the Watch: so that most people in the ship, excepting Mr. Harrison gave the invention over as being good for nothing. For they said, had the Timekeeper been on the other side their reckoning, there might have been some thought of its being right, since it was in those seas the Lichfield man of war was driven so much to the east (which several other ships had also been) but there never was an instance of a ship bound to Madeira, being so much to the west of her reckoning as the Watch made it.

On the 8th. the Deptford, by observation, was in Latitude 25°. 17′, & by the Timekeeper 15°. 17′ west from Portsmouth; but by the ship's reckoning, not so far west by a degree & a half. while most of the crew were so confident in their reckonings that they would have steered more westerly, as they were

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